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10/562,573	12/27/2005	Mats Erlandsson-Warvelin	43315-226097	8602

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EXAMINER

NORTON, JENNIFER L

ART UNIT	PAPER NUMBER
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2121

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,573	Applicant(s) ERLANDSSON-WARVELIN ET AL.	
	Examiner JENNIFER L. NORTON	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 29-38 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 15-26 and 29-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11-14 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/27/10, 11/04/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a **Final Office Action** in response to the Amendment received on 27 September 2010. Claims 1 and 27 have been amended. Claim 28 has been previously cancelled. Claims 8-10, 15-26 and 29-38 have been previously withdrawn. Claims 1-27 and 29-38 are pending in this application. Claims 1-7, 11-14 and 27 have been examined on their merits.

Response to Arguments

2. Applicant's arguments, see Remarks pgs. 11-17, filed 27 September 2010 with respect to claims 1-7, 11-14 and 27 rejected under 35 U.S.C. 103(a) have been considered but are moot in view of the new ground(s) of rejection.

3. The Examiner emphasizes that all anticipated components and limitations of pending claims are present in the prior art as supported below. In addition, the Examiner notes the limitation of "controlling a plurality of machines configured to pick up an item from one of a plurality of first positions and place the item in one of a plurality of second positions" (see Remarks pg. 11, paragraph 3) was newly presented in the Amendment After Non-Final received on 27 September 2010 by the Office, and has been addressed as set forth in the Office Action below.

4. Claims 1-7, 11-14 and 27 stand rejected under 35 U.S.C. 103(a) as set forth below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2001/0011197 A1 (hereinafter White) in view of U.S. Patent No. 5,914,880 (hereinafter Yasojima) in further view of U.S. Patent No. 5,041,907 (hereinafter Sager)

6. As per claim 1, White teaches a method for controlling a machine to pick up an item from a first position and place the item in a second position (pg. 3, par. [0025] and Fig. 2, element 120; i.e. via pick and place subsystem), the method comprising:

providing with a sensor member data (via Fig. 2, element 112 and 114) on said first position (i.e. detecting when an item has arrived) to a control member (Fig. 2, element 130) configured to control a plurality of machines sending a message from a master process of the control member comprising of one said first position to all said machines controlled by said control member (pgs. 2-3, par. [0023]; i.e. sending status signals to upstream and downstream machines),

sending a message from said control member to said machines with an indicator member specifying which of the one first position shall be used (pgs. 2-3, par. [0023]; i.e. sending control signals to upstream and downstream machines),

picking up an item from said first position and moving the item to a second position, and

receiving with said control member from one of said machines a message that said first position has been used (pgs. 2-3, par. [0023] and pg. 5, par. [0045]; i.e. receiving a "PLACED" status information from upstream and downstream machines).

White does not expressly teach a plurality of machines configured to pickup an item from one of a plurality of first positions and place the item in one of a plurality of second positions; sending a message from said control member to all said machines with an indicator member specifying which of the one or more first positions shall be used; picking up with one of the machines an item from said one of first position to be used and moving the item to one of the second positions.

Yasojima teaches a plurality of same type machines (Fig. 3, element 12) arranged along a transporting unit (col. 3, lines 61-67 and col. 4, lines 1-3) and sending a message from said control member (pg. 10, lines 46-50 and pg. 11, lines 13-18 and Fig. 11, element 40) to all said machines specifying status information/data (col. 5, lines 65-67 and col. 6, lines 1-6).

Yasojima does not expressly teach a plurality of machines configured to pickup an item from one of a plurality of first positions and place the item in one of a plurality of second positions; and picking up with one of the machines an item from said one of first position to be used and moving the item to one of the second positions.

Sager teaches a plurality of machines (Fig. 1, element 200 and 201) configured to pickup an item (via Fig. 1, element 216 of Fig. 1, element 200 and 201) from one of a plurality of first positions and place the item in one of a plurality of second positions (col. 3, lines 12-15 and 22-24 and col. 9, lines 37-46); and picking up with one of the machines an item from said one of first position to be used and moving the item to one of the second positions (col. 8, lines 20-67 - col. 10, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White to include a plurality of same type machines arranged along a transporting unit; and sending a message from said control member to all said machines to provide improved operability and facilitation of expansion of a transfer machine control apparatus (Yasojima: col. 1, lines 65-67); and a plurality of machines configured to pickup an item from one of a plurality of first positions and place the item in one of a plurality of second positions; and picking up with one of the machines an item from said one of first position to be used and moving the item to one of the second positions to provide a real-time process of locating, identifying and determining the orientation of randomly positioned and randomly

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oriented objects to pick them up and transfer them to a moving or stationary destination (Sager: col. 1, lines 64-68 and col. 2, lines 29-30).

7. As per claim 2, White teaches sending a message with said control member (Fig. 2, element 130) comprising said first position, or more said first positions (pgs. 2-3, par. [0023]), to said machines controlled by the control member (pg. 3, par. [0027]) to machines in which message each said first position is marked with a status of used (pgs. 2-3, par. [0023] and pg. 5, par. [0045]; i.e. sending status signals to upstream and downstream machines indicating a "PLACED" state).

White does not expressly teach sending a message with said control member comprising said first position, or more said first positions, to all said machines controlled by the control member.

Yasojima teaches sending a status message from said control member (pg. 10, lines 46-50 and pg. 11, lines 13-18 and Fig. 11, element 40) to all said machines (col. 5, lines 65-67 and col. 6, lines 1-6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White to include sending a status message from said control member to all said machines to provide improved operability and facilitation of expansion of a transfer machine control apparatus (col. 1, lines 65-67).

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8. As per claim 3, White teaches as set forth above to the method according to claim 1, further comprising:

receiving at one of said machines the message comprising one or more said first positions (pgs. 2-3, par. [0023] and pgs. 4-5, par. [0040]),

handling an item (Fig. 2, element 20) placed on one of the one or more of said first positions (pg. 3, par. [0025] and pgs. 4-5, par. [0040]), and

sending a message the control member comprising the information that one or more of said first positions where said item was handled has been used (pgs. 2-3, par. [0023] and pg. 5, par. [0045]; i.e. receiving a "PLACED" status information from upstream and downstream machines).

9. As per claim 4, White teaches the method according to claim 1, further comprising:

updating a status of one of said first positions to read used (pg. 5, par. [0045]; i.e. "PLACED" status), and

sending to all machines controlled by said control member a message that a status of the said first position consumed is equal to used (pgs. 2-3, par. [0023] and pg. 5, par. [0045]; i.e. receiving a "PLACED" status information from upstream and downstream machines).

White does not expressly teach updating in said control member a marker of one of said first positions; and sending from the control member to all machines controlled by said control member a status message.

Yasojima teaches updating in said control member a marker of one of said first positions (col. 5, lines 65-67 and col. 6, lines 1-6; i.e. updating the current status in memory); and sending from the control member (pg. 10, lines 46-50 and pg. 11, lines 13-18 and Fig. 11, element 40) to all machines controlled by said control member a status message (col. 5, lines 65-67 and col. 6, lines 1-6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White to include updating in said control member a marker of one of said first positions; and sending from the control member to all machines controlled by said control member a status message to provide improved operability and facilitation of expansion of a transfer machine control apparatus (col. 1, lines 65-67).

10. As per claim 5, White does not expressly teach the method according to claim 1, further comprising:

selecting with a control member one or more specific said first positions to be handled by a specific machine.

Yasojima teaches selecting with a control member (Fig. 3, element 30 of Fig. 2, element 20) one or more specific operation to be handled by a specific machine (col. 4, lines 38-50).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White to include selecting with a control member one or more specific operation to be handled by a specific machine to provide improved operability and facilitation of expansion of a transfer machine control apparatus (col. 1, lines 65-67).

11. As per claim 27, White teaches a computer program product (pg. 5, par. [0046]), comprising:

a non-transitory computer readable medium (pg. 5, par. [0046]; i.e. RAM or ROM); and

computer code and/or software code portions recorded on the computer readable medium which when loaded into a computer or processor will make the computer or processor (pg. 5, par. [0046; i.e. storing computer/software code on RAM or ROM) perform a method for controlling a machine to pick up an item from a first position and place the item in a second position (pg. 3, par. [0025] and Fig. 2, element 120; i.e. via pick and place subsystem),

the method comprising providing with a sensor member data (via Fig. 2, element 112 and 114) on said first position (i.e. detecting when an item has

arrived) to a control member (Fig. 2, element 130) configured to control a plurality of machines (pgs. 2-3, par. [0023]; i.e. sending status signals to upstream and downstream machines),

 sending a message from a master process of the control member comprising one said first position to said machines controlled by said control member (pgs. 2-3, par. [0023]; i.e. sending control signals to upstream and downstream machines),

 sending a message from said control member to said machines with an indicator member specifying which of the one first position shall be used (pgs. 2-3, par. [0023] and pg. 5, par. [0045]; i.e. sending a "PLACED" status information from upstream and downstream machines), and

 receiving with said control member, from one of said first machines a message that said one first position has been used (pgs. 2-3, par. [0023] and pg. 5, par. [0045]; i.e. receiving a "PLACED" status information from upstream and downstream machines).

White does not expressly teach a plurality of machines configured to pickup an item from one of a plurality of first positions and place the item in one of a plurality of second positions; sending a message from said control member to all said machines with an indicator member specifying which of the one or more first positions shall be used; and picking up with one of the machines an item from said one of first position to be used and moving the item to one of the second positions.

Yasojima teaches a plurality of same type machines (Fig. 3, element 12) arranged along a transporting unit (col. 3, lines 61-67 and col. 4, lines 1-3) and sending a message from said control member (pg. 10, lines 46-50 and pg. 11, lines 13-18 and Fig. 11, element 40) to all said machines specifying status information/data (col. 5, lines 65-67 and col. 6, lines 1-6).

Yasojima does not expressly teach a plurality of machines configured to pickup an item from one of a plurality of first positions and place the item in one of a plurality of second positions; and picking up with one of the machines an item from said one of first position to be used and moving the item to one of the second positions.

Sager teaches a plurality of machines (Fig. 1, element 200 and 201) configured to pickup an item (via Fig. 1, element 216 of Fig. 1, element 200 and 201) from one of a plurality of first positions and place the item in one of a plurality of second positions (col. 3, lines 12-15 and 22-24 and col. 9, lines 37-46); and picking up with one of the machines an item from said one of first position to be used and moving the item to one of the second positions (col. 8, lines 20-67 - col. 10, lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White to include a plurality of same type machines arranged along a transporting unit; and sending a message from said control member to all said machines to provide improved operability and facilitation of expansion of a transfer machine control apparatus (Yasojima: col. 1, lines 65-67);

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and a plurality of machines configured to pickup an item from one of a plurality of first positions and place the item in one of a plurality of second positions; and picking up with one of the machines an item from said one of first position to be used and moving the item to one of the second positions to provide a real-time process of locating, identifying and determining the orientation of randomly positioned and randomly oriented objects to pick them up and transfer them to a moving or stationary destination (Sager: col. 1, lines 64-68 and col. 2, lines 29-30).

12. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over White in view of Yasojima in further view of Sager and U.S. Patent No. 5,568,593 (hereinafter Demarest).

13. As per claim 6, White, Yasojima nor Sager expressly teach the method according to claim 5, wherein the control member uses an algorithm to select one of said first positions to be handled by one specific machine of all machines.

Demarest teaches a control member uses an algorithm to select one of said first positions to be handled by one specific machine of all machines (col. 4, lines 23-31 and col. 12, lines 15-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White in view of Yasojima in further view of Sager to include a control member uses an algorithm to select one of

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said first positions to be handled by one specific machine of all machines to provide an cost effective sorting device that virtually eliminates operators exposure to repetitive manual operations (col. 2, lines 11-13).

14. As per claim 7, White, Yasojima nor Sager expressly teach the control member carries out a repeated triggering of a first position.

Demarest teaches as set forth above the control member carries out a repeated triggering of a first position (col. 7, lines 64-67 and col. 8, line 1).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White in view of Yasojima in further view of Sager to include a control member carries out a repeated triggering of a first position to provide an cost effective sorting device that virtually eliminates operators exposure to repetitive manual operations (col. 2, lines 11-13).

15. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over White in view of Yasojima in further view of and Sager U.S. Patent No. 4,580,207 (hereinafter Arai).

16. As per claim 11, White, Yasojima nor Sager expressly teach allocating one of said first positions to a specific machine dependent on load balancing for a plurality of machines controlled by the control member.

Arai teaches allocating one of said first positions to a specific machine dependent on load balancing for a plurality of machines controlled by the control member (col. 5, lines 28-44).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White in view of Yasojima in further view of Sager to include allocating one of said first positions to a specific machine dependent on load balancing for a plurality of machines controlled by the control member to improve the production efficiency such as improvement of a utilization factor of the facilities (col. 8, lines 18-21).

17. As per claim 12, White, Yasojima nor Sager expressly teach allocating said first position to a specific machine dependent on load balancing for all of the machines controlled by the control member.

Arai teaches allocating a job to a specific machine dependent on load balancing for all of the machines controlled by the control member (col. 5, lines 28-44 and col. 6, lines 23-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White in view of Yasojima in further view of Sager to include allocating a job to a specific machine dependent on load balancing for all of the machines controlled by the control member to improve the

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production efficiency such as improvement of a utilization factor of the facilities (col. 8, lines 18-21).

18. As per claim 13, White, Yasojima nor Sager expressly teach allocating one of said first positions to a specific machine dependent on a stoppage that has occurred in a work group controlled by the control member.

Arai teaches allocating a job to a specific machine dependent on a stoppage that has occurred in a work group controlled by the control member (col. 5, lines 28-44 and col. 6, lines 23-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White in view of Yasojima in further view of Sager to include allocating a said job to a specific machine dependent on a stoppage that has occurred in a work group controlled by the control member to improve the production efficiency such as improvement of a utilization factor of the facilities (col. 8, lines 18-21).

19. As per claim 14, White, Yasojima nor Sager expressly teach allocating one of said first positions to a specific machine dependent on the removal from service of another specific machine in the work group controlled by the control member.

Arai teaches allocating one of said first positions to a specific machine dependent on the removal from service of another specific machine in the work group controlled by the control member (col. 5, lines 28-44 and col. 6, lines 23-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of White in view of Yasojima in further view of Sager to include allocating one of said first positions to a specific machine dependent on the removal from service of another specific machine in the work group controlled by the control member to improve the production efficiency such as improvement of a utilization factor of the facilities (col. 8, lines 18-21).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER L. NORTON whose telephone number is (571)272-3694. The examiner can normally be reached on Monday-Friday between 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Albert DeCady/
Supervisory Patent Examiner
Art Unit 2121

/JLN/